- 10-Generate intraoperative image/s of the target site.
- 20- Register the intraoperative images, the patient target site, and the surgical instruments into a common coordinate system
- 30- Track the position of the surgical instrument with respect to the patient target site
- 50- Indicate a spatial feature of the patient target site on the images of the patient target site
- 60- Project indicia on the images relating the position and orientation of the surgical instruments to the spatial feature of the patient target site

## FIG. 1

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- 130) Generate a 2D or 3D intraoperative images of the patient target site from a given orientation
- 132) track the position of a surgical instrument with respect to the patient target site
- 136) Register the intraoperative images of the patient site, the patient target site, and the surgical instrument into a common reference coordinate system
- 150) Specify a spatial feature (shape and position) of the patient target site on the image
- 160) Correlate the position and orientation of the surgical instrument with respect to the target feature
- 170) Project indicia (3D shape or points and lines) on the intraoperative image relating the position and orientation of the surgical instrument to the target spatial feature

FIG. 2

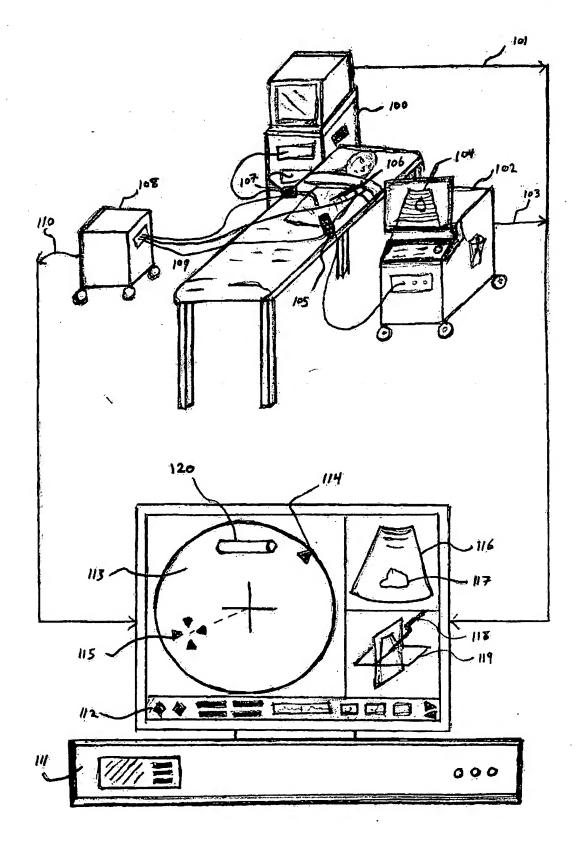
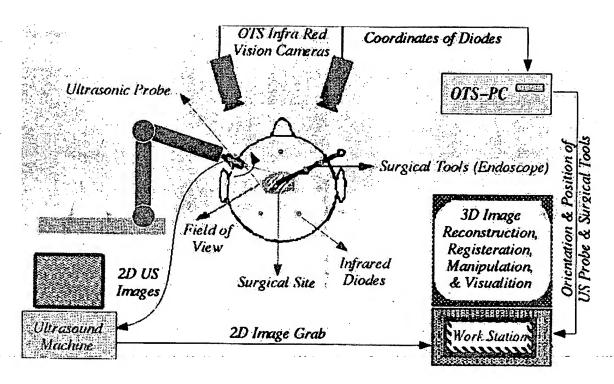


FIG. 3

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5 FIG. 4